

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of Section 3)	
Of the Cable Television)	
Consumer Protection and)	
Competition Act of 1992)	MM Docket No. 92-266
)	
Statistical Report on)	
Average Rates for Basic)	
Service, Cable Programming)	
Services, and Equipment)	

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REPORT ON CABLE INDUSTRY PRICES

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By the Commission:

I. Introduction

1. Section 623(k) of the Communications Act of 1934 ("Communications Act"),¹ as amended by the Cable Television Consumer Protection and Competition Act of 1992 ("1992 Cable Act"), requires the Commission to publish annually a statistical report that compares the prices charged by cable systems facing effective competition² with the prices charged by those systems not facing

¹47 U.S.C. § 521 *et seq.*

²Under the 1992 Cable Act, effective competition is defined to exist: (1) where the franchise area is served by at least two unaffiliated multichannel video programming distributors ("MVPDs"), each of which offers comparable video programming to at least 50% of households, and at least 15% of households subscribing to programming services offered by an MVPD subscribe to services other than those offered by the largest MVPD (referred to herein as head-to-head competition or the "overbuild" test); (2) where fewer than 30% of the households in the franchise area subscribe to the cable service of a cable system (the "low penetration" test); or (3) where a municipal cable system offers service to at least 50% of the households in the franchise area (the "municipal" test). Communications Act, § 623(l)(1)(A)(B)(C), 47 U.S.C. § 543(l)(1)(A)(B)(C). The Telecommunications Act of 1996 added a fourth prong, finding that effective competition exists where a local exchange carrier ("LEC") or its affiliate (or any MVPD using the facilities of such carrier or its affiliate) offers video programming services (other than direct-to-home satellite services) in the franchise area of an unaffiliated cable operator, but only if the services so offered are comparable to the services provided by the cable operator (the "LEC" test). Communications Act, § 623(l)(1)(D), 47 U.S.C. § 543(l)(1)(D). This new standard has been applicable since February 8, 1996.

effective competition for the delivery of basic cable service, other cable programming services, and equipment.³ This information is used to monitor cable prices and determine if the rates charged for equipment and services by cable systems not subject to effective competition are not unreasonable when compared with rates charged by cable systems subject to effective competition.⁴ The report also shows the changes in rates for programming services and equipment over time and on a per channel basis. This report is issued in compliance with that statutory obligation and represents the sixth study of cable rates conducted by the Commission since 1992.⁵

2. The information and analysis provided in this report is based upon the results of the Commission's 1998 survey of cable industry prices (the "Survey"). On July 21, 1998, the Commission released an Order directing cable operators⁶ selected for the sample to respond to Commission data requests, pursuant to Section 623(k) of the Communications Act, no later than September 1, 1998.⁷ The Survey requested data from selected cable operators as of July 1, 1997 and July 1, 1998. A limited amount of data were requested as of July 1, 1996. The Survey collected information about each operator's regulatory status, monthly charge for the basic service tier ("BST") and cable programming service tiers ("CPSTs"), monthly charge for equipment, installation fees, disconnect and reconnect fees, fees for tier changes, and charges for additional outlets. The Survey also sought information to explain the changes in rates and subscriber charges. After the Survey data were collected, the Commission supplemented those data with information about each respondent's regulatory status from Commission files. The Survey permits the Commission to compare the prices charged by two groups of cable operators: (1) cable operators that face effective competition as defined by the Communications Act -- referred to as the "competitive group"-- and (2) cable operators that do not face

³Pub. L. No. 102-385, 106 Stat. 1460 (1992), § 623(k), 47 U.S.C. 534(k) (1992). The 1992 Cable Act amends Title VI of the Communications Act of 1934. The 1992 Cable Act defines the term "basic cable service" as "any service tier which includes the retransmission of local television broadcast signals." "Cable programming service" is defined as "any video programming provided over a cable system regardless of service tier...other than (A) video programming carried on the basic service tier, and (B) video programming offered on a per channel or per program basis." See 47 U.S.C. § 522(3) and 47 U.S.C. § 543(l)(2).

⁴Communications Act, §§ 623(b)(1) and 623(c)(2)(B). 47 U.S.C. §§ 543(b)(1) and 543(c)(2)(B).

⁵For the results of the five previous surveys, see *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992 (Statistical Report on Average Rates for Basic Service, Cable Programming and Equipment)*, 12 FCC Rcd. 22756 (1997) ("1997 Report"); *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992 (Statistical Report on Average Rates for Basic Service, Cable Programming and Equipment)*, 12 FCC Rcd. 3239 (1997) ("1996 Report"); *Report on the Cable Services Bureau's Survey on the Rate Impact of the Federal Communications Commission's Revised Rate Regulations*, 9 FCC Rcd. 5484 (1994); *FCC, Cable Services Bureau, Cable Regulation Impact Survey, Changes in Cable Television Rates Between April 5, 1993 - September 1, 1993: Report and Summary* (Released February 22, 1994); *Second Order on Reconsideration, Fourth Report and Order, and Fifth Notice of Proposed Rulemaking*, 8 FCC Rcd. 5361 (1993) ("Benchmark Order").

⁶For purposes of this report, a company is considered to be an operator for each Community Unit Identification Number ("CUID") it serves. Thus, if a company serves 50 CUIDs that are included in the Survey, that company will be referred to herein as 50 operators. Note: a CUID is a unique identification code assigned by the Commission to a single operator within a community unless the operator also serves a separate area within the same community. In that case, there would be two separate CUIDs, one for each area served.

⁷*Order In the Matter of Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992*, MM Docket No. 92-266, DA 98-1439, (Released July 21, 1998).

effective competition -- referred to as the "noncompetitive group." Within the noncompetitive group, information was collected from both regulated and unregulated operators.

3. In this Survey, we sought, for the first time, to gather additional information about the price and availability of new services such as digital tiers, Internet access, and telephony offered by cable operators. The major findings of the Survey are summarized below.

II. Summary of Findings

4. The gap in average monthly rates between competitive and noncompetitive operators has widened. The average monthly rate (for the BST, CPST, and equipment) charged by cable operators facing effective competition was \$27.15 and \$28.71 as of July 1, 1997 and 1998, respectively, (\$0.55 and \$0.57 on a per channel basis). For those not facing effective competition, the average monthly rate was \$28.56 and \$30.53, respectively, during the same time period (\$0.64 and \$0.65 on a per channel basis). This represents a differential of 5.2% and 6.3%, respectively, in average monthly rates between the competitive and the noncompetitive. Further, the average monthly rates charged by systems facing head-to-head competition (i.e., systems within the competitive group that meet the overbuild test or the LEC test) was 14% less than the average monthly rate charged by noncompetitive systems.

5. Average monthly rates have continued to rise within each group as well. Specifically, average monthly rates charged by competitive operators rose by 6.8% during the 12 months ending July 1, 1997 and 5.8% during the 12 months ending July 1, 1998. Per channel rates decreased by 5.2% in 1997 and increased by 3.6% as of July 1, 1998. During the same time periods, the average monthly rates charged by noncompetitive operators rose by 8.9% and 6.9%, respectively. Per channel rates of noncompetitive operators rose by 3.2% and 1.6%, respectively. As a result, average monthly rates and per channel rates as well as the rate of increase in rates is greater for the noncompetitive group than for the competitive group. However, the pace of those increases slowed in 1998.

6. Another source of information on cable industry prices is the Consumer Price Index ("CPI") published by the Bureau of Labor Statistics ("BLS"). For the same time periods, the cable services segment of the CPI ("Cable CPI") grew by 7.5% and by 6.7% respectively.⁸ The Cable CPI, however, includes the prices charged for premium services such as a la carte and pay-per-view channels as well as installation charges, which are not included in our calculation of average monthly rates. This may explain differences between the rates reported by the BLS for the Cable CPI and the average monthly rates reported in the Survey. The overall CPI, which is also published by the BLS, grew by 2.2% and 1.7%, respectively, during the years ending July 1, 1997 and 1998.

7. Both competitive and noncompetitive operators attribute most of their rate increases to increases in programming costs, inflation, channel additions and system upgrades. Both groups also attribute significant portions of their rate increases to increases in non-defined "other" expenses.

8. Ideally, when calculating price changes, we would like to be able to take into account changes in the quantity and quality of service provided. In the case of cable rates, however, this is difficult to do because both the quantity and quality of services provided has changed significantly in

⁸Since the vast majority of cable subscribers belong to the noncompetitive group, we believe that the Cable CPI, which is a measurement of the prices paid by consumers for a "market basket of cable services," is roughly comparable to the average monthly rate calculated for that group.

recent years as cable operators have continued to upgrade their systems' capacity. Both competitive and noncompetitive operators have continued to increase the number of channels provided to their subscribers which means that the quantity of service received by subscribers has changed over time. Survey results show that almost 50% of operators surveyed have increased their systems' capacity to 550 MHz or more. This typically has resulted in additional channels of service and may result in improved signal reliability. The competitive group reported a 1.5% increase and the noncompetitive group a 4.6% increase, in the average number of channels provided for the 12 months ending July 1, 1998. This brought the competitive group to an average of 54 channels and the noncompetitive group to an average of 50.1 channels as of July 1, 1998. Looking at average monthly rates on a per channel basis provides one approach that can serve as a proxy for quality adjusted price changes, although not a perfect proxy.⁹ Per channel rates increased for both groups, but by a rate of increase that was lower than the increase in unadjusted average monthly rates. For the competitive group, per channel rates increased by 3.6% (from \$0.55 to \$0.57) and for the noncompetitive group by 1.6% (from \$0.64 to \$0.65) during the year ending July 1, 1998.

9. Operators in the competitive and noncompetitive groups report that they offered 41 and 38 satellite channels, respectively, as of July 1, 1998, and that about 75% of those channels for both groups are devoted to general entertainment programming with the remaining 25% distributed among children's, news, and sports programming. Rates per satellite channel increased by 0.1% for the competitive group and declined by 2.2% for the noncompetitive group for the year ending July 1, 1998.

10. The Survey requested information on the provision of digital services and found that of 444 responses¹⁰ to a question on the availability of digital tiers, 128 operators (or 29%) offered that service. Of 709 responses to a question about Internet access, 137 operators (or 19%) reported that they offered Internet access service, and of the 678 responses to a question about telephony service, 25 operators (or 4%) report that they offered telephony service as of July 1, 1998.¹¹

III. Survey Methodology

A. Sample

11. Because only a small number of cable operators face effective competition, we chose not to sample that group and requested data from all cable operators serving areas where effective competition was believed to exist.¹² This group was drawn from two lists: (1) a list of operators

⁹See paragraph 30 and note 27 for a further discussion of quality/quantity adjusted price changes.

¹⁰The number of responses varied for each question in the price survey questionnaire. See attachments for specific response rates.

¹¹See *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming. Fifth Annual Report*, FCC 98-335, 14 Communications Reg. (P&F) 0923 at ¶¶ 48-60 and 196-198 (Released December 23, 1998) ("*Competition Report*") for a discussion of current and future trends in the provision of digital and other broadband services and telephony via cable.

¹²The main purpose of sampling is to reduce the cost of collecting information (see, e.g., Mandel, B.J., *Statistics For Management*, 1984, at pages 174-176) ("Mandel"). In this case there was little additional cost to survey the full population, so we chose not to sample.

serving competitive CUIDs which was compiled for the 1993 cable rate survey,¹³ and (2) a list of operators serving CUIDs that the Commission has subsequently found to be subject to effective competition (as well as the new competitive entrants where applicable). The resulting competitive group consisted of 286 CUIDs. Because the noncompetitive group is so large, consisting of approximately 30,000 CUIDs, we chose to sample that group. Using a standard formula for deriving sample size, we drew 560 sampling units to make up the sample for the noncompetitive group.¹⁴ We further chose to stratify the noncompetitive group to achieve a closer representation of the industry's subscribers, which is our ultimate interest.¹⁵ The noncompetitive group was divided into three size strata. The size of each stratum was determined according to the proportion of subscribers receiving service from systems in each size group across the entire industry.¹⁶ The resulting sample for the noncompetitive group consisted of 560 CUIDs. A total of 846 survey questionnaires were mailed to cable operators serving the selected CUIDs from both groups, and 783 completed questionnaires were returned to the Commission in time to be included in the analysis.¹⁷

12. Of the 783 questionnaires returned to the Commission, 767 met minimum necessary data requirements.¹⁸ The remaining 16 lacked sufficient information to be included in the Survey. Thus, completed and usable surveys were received from 90% of the 846 CUIDs surveyed. Operators serving the 767 CUIDs included in the Survey served 14.1 million subscribers, or approximately 21.7% of all cable subscribers (assuming an industry total of approximately 65 million subscribers), as of July 1, 1998.¹⁹

¹³See *Benchmark Order*, Appendix E (1993). It should be noted that a number of operators who were designated as having faced effective competition in 1993 no longer fall in that category. Some of those operators are no longer in business, some have increased subscribership beyond the 30% penetration rate required to meet the "low penetration" test for effective competition, and some have been acquired by their competitors.

¹⁴See Mandel at page 258.

¹⁵Within the noncompetitive group, a majority of subscribers are served by a small number of very large cable operators who serve the larger cable communities (or CUIDs). Conversely, operators who serve a relatively small number of subscribers in each community serve the vast majority of the 30,000 cable communities. By stratifying the group, the sample becomes more representative of the universe of ultimate interest -- subscribers. Had we intended to focus our analysis on the typical cable operator (regardless of the number of subscribers that operator served) rather than the typical subscriber, we would have elected not to stratify the group.

¹⁶See Warren Publishing, Inc., *Television and Cable Factbook*, Services Volume No. 65, 1997, at F-3, ("Warren Factbook") for further information on various size categories within the industry. The Warren Factbook reports that 46.7% of cable subscribers purchase services from a system with 50,000 or more subscribers, 33.6% of cable subscribers purchase services from a system with between 10,000 and 49,999 subscribers, and 19.7% of cable subscribers purchase cable services from a system with fewer than 10,000 subscribers. These three size categories were used to determine the three size strata for the sample, and the associated percentages were used as the relative weights for each stratum, respectively, in calculating the averages for the noncompetitive group.

¹⁷Because we believe they were evenly distributed by size and were largely from the competitive group, which were not sampled, we believe that the 63 non-responses would have behaved the same as the 783 respondents and, therefore, do not effect the results.

¹⁸Responses that provided the average monthly charge, number of channels offered, and number of subscribers for at least one year were included in the analysis.

¹⁹See *Competition Report* at ¶ 17.

13. Approximately 32%, or 246, of the usable questionnaires belong to the competitive group.²⁰ As of July 1, 1998, operators serving these CUIDs provided service to approximately 1.1 million subscribers, or 1.7% of all cable subscribers. As of July 1, 1998, 88 of these 246 respondents reported that they faced competition in the geographic area they serve, with 29 of these meeting the overbuild test and 59 meeting the LEC test. The remaining 158 respondents met the effective competition test either because they served fewer than 30% of the households in their respective franchise areas or because they faced competition from a municipal provider (153 operators met the low penetration test and 5 operators met the municipal test).

14. Approximately 68%, or 521, of the usable responses were from cable operators that are in the noncompetitive group. Of these 521 responses, 356, or 68.3%, were subject to rate regulation ("regulated group"). These respondents provided cable services to 11.7 million subscribers. The remaining responses in the noncompetitive group are from cable operators not subject to rate regulation ("unregulated group"). These operators provided cable services to 1.3 million subscribers.²¹ Thus, as of July 1, 1998, the cable operators making up the sample for the noncompetitive group (both regulated and unregulated operators) provided service to 13 million subscribers, or approximately 20% of all cable subscribers. See Attachment A for further information about the sample.

B. Variables

15. For purposes of this report, six variables were selected to serve as the focus of the analysis. These variables are: average monthly rate for programming services (BST and CPST), average monthly charge for equipment, average monthly rate for programming services and equipment combined, average number of channels provided, average monthly rate per channel, and average monthly rate per satellite channel. Each variable is described below.

16. Average Monthly Rate for Programming Services (BST and CPST). This variable is the monthly rate paid by subscribers for the BST and the most highly subscribed CPST.²² This excludes premium, a la carte, and pay-per-view services, digital tiers, and CPSTs that are New Product Tiers ("NPTs")²³ because their rates are not subject to rate regulation. This variable is made up of the sum of each respondent's BST and CPST rate.²⁴ The average monthly rate is then calculated by

²⁰A cable operator serving a specific CUID is categorized as competitive as of the date certified by the Commission with a finding of effective competition.

²¹A large percentage of the unregulated group is made up of small operators who are exempt from rate regulation under Section 301(c) of the Telecommunications Act of 1996. For more information on the breakdown of regulated and unregulated groups by size, see Attachment C-3.

²²The BST is defined as the package of channels (or tier) that includes signals from local television broadcast stations (such as affiliates of the major networks, independent stations, and noncommercial stations) and public, educational, and governmental ("PEG") channels. The CPST is defined as any package or tier of channels other than BST or programming offered separately as pay-per-channel programming or pay-per-program services. Some operators offer more than one CPST. See *supra* note 3.

²³A new product tier is a type of CPST made up of channels that generally were not offered by the cable system prior to October 1, 1994. To be considered an NPT, a CPST must meet the conditions set forth in Section 76.987 of the Commission's rules, 47 C.F.R. § 76.987.

²⁴Of the usable responses, 72 operators, serving approximately 400,000 subscribers or about 3% of all subscribers

averaging this variable for each group.

17. Equipment. This variable is the average monthly charge paid by subscribers for a converter and remote control unit. A converter may be addressable or non-addressable. The equipment variable was constructed for each respondent by adding the price charged for a remote control unit and for the type of converter purchased by the largest number of subscribers.²⁵

18. Average Monthly Rate (for BST and CPST Service and Equipment). This variable is the sum of the programming services and equipment charges and represents the amount charged a typical subscriber for BST and CPST service and equipment.

19. Average Number of Channels Offered (on BST and CPST). This variable is the average number of channels received by a typical subscriber on the BST and the most highly subscribed CPST (other than NPTs) as reported by the Survey respondents. As with the monthly rate, channels devoted to premium, a la carte, pay-per-view services, and digital tiers, are not included.

20. Average Monthly Rate Per BST and CPST Channel. This variable is calculated by dividing the average monthly rate by the average number of BST and CPST channels reported by each respondent, and then averaging the result.

21. Average Monthly Rate Per BST and CPST Satellite Channel.²⁶ This variable is calculated by dividing the average monthly rate by the average number of BST and CPST satellite channels reported by each respondent, and then averaging the result.²⁷

22. In addition to these variables, we sought information on the availability of digital tiers and other non-video services such as Internet access and telephony. We also sought information on charges for installation, disconnection, reconnection, and tier changes, and on the distribution of channels among the major categories of programming.²⁸

in the sample, report that they offered their subscribers only a single tier of service as of July 1, 1998.

²⁵We do not report separate figures for a converter and a remote control unit since a large proportion of cable operators changed their accounting practice between 1996 and 1997 such that they no longer distinguish customers by their purchase of a particular type of converter or remote control unit.

²⁶Satellite Channels are a subset of all channels and do not include local broadcast, PEG, or other local origination channels or services.

²⁷The value of cable services can be measured in various ways. Some analysts have suggested that the average number of channels (or satellite channels) received by subscribers, along with their respective per channel rates, are an appropriate measure of value. Alternatively, it has been suggested that an increase in the number of channels (satellite or otherwise) may not be similarly valued by all subscribers, or that as more channels are added, the additional channels have a declining marginal value. Because our survey was directed to cable operators, we did not specifically seek information on how consumers value individual channels within the BST and CPST packages they receive, or how they would value these packages if given the option of receiving fewer channels than offered. We report on the average monthly rate per channel as well as the average monthly rate per satellite channel in order to be able to compare rates across all categories of operators and over time on a comparable basis.

²⁸The survey also asked about the availability of a "lifeline basic" tier of service. We received no responses to that question.

C. Calculation of Averages

23. To increase the precision of the Survey results, we stratified both the competitive and noncompetitive groups. The reported averages for both groups were calculated according to the following three steps. First, as explained above, each noncompetitive CUID was categorized into one of three size strata according to the number of subscribers served by the respondent's system.²⁹ The competitive group was also divided into three size strata using the same subscriber size criteria as used for the noncompetitive group. Operators serving 50,000 or more subscribers were placed in the large category, operators serving between 10,000 and 49,999 subscribers were placed in the medium-sized category, and operators serving fewer than 10,000 subscribers were placed in the small category. Second, an unweighted average for each of the six primary variables was calculated for each size stratum for both groups. Third, an overall average for each primary variable was calculated for each group by weighting the averages of each stratum by the proportion of subscribers in that stratum. The relative weights for each stratum of the noncompetitive group are given in footnote 15. For the competitive group, relative weights were determined by the proportion of subscribers served by operators in each of the size categories. We found that 48.9% of the total number of subscribers in the competitive universe were served by operators in the large category, 44.5% of subscribers were served by operators in the medium-sized category, and 6.6% of subscribers were served by operators in the small category. These percentages became the weights used to calculate the averages for the competitive group³⁰

²⁹For a general explanation of stratified sampling methodology, see Mandel at pages 259-260.

³⁰A further word about the statistical concepts used in this report is appropriate. The use of statistics as an analytical tool is a way of estimating the unknown characteristics of a population (such as the mean or average) by examining a random sample selected from the population. For example, we can estimate the average monthly rate for the entire population of cable operators (30,000 CUIDs) by examining the average monthly rate of a sample of cable operators. Even though our sample will be representative of the entire population of CUIDs, the average monthly rate for our sample probably will not exactly match the average monthly rate for the entire population. Rather, the average monthly rate for the population of 30,000 CUIDs will fall within a range of values calculated from the sample. According to statistical theory, the average monthly rate for the population of 30,000 CUIDs is bounded by the sample's reported average plus or minus 1.96 multiplied by the standard error of the mean (average). This will give us a "95.5% confidence level." (A 95.5% confidence level means that if multiple samples are drawn from the population, the estimated statistic [e.g., a mean or average] will lie within the interval for 95.5% of the samples, and outside the interval for 4.5% of the samples.) Using this method, we can estimate the average monthly rate for the population of 30,000 CUIDs. If, for example, our sample's reported average monthly rate is \$25.00 and the standard error is \$0.50, we estimate that the average monthly rate lies between \$24.02 and \$25.98 with a 95.5% confidence level. We arrive at the low end of the range, \$24.02, by subtracting 1.96 times \$0.50 (the standard error) from \$25.00, and we arrive at \$25.98, the high end of the range, by adding 1.96 times \$0.50 to \$25.00. In this report, the standard error for each estimated average is reported in Attachment C-2. See Kmenta, J., *Elements of Econometrics*, at pages 70-153 ("Kmenta"). See also Mandel at pages 238-267, for a more complete discussion of statistical theory.

IV. Survey Results

A. Comparison of Competitive and Noncompetitive Groups

24. The average monthly rates for the competitive and noncompetitive groups as of July 1, 1996, 1997, and 1998, are shown in Table 1, below.³¹ As shown in the table, the differential in monthly rates between competitive and noncompetitive operators has increased from 3.1% on July 1, 1996, to 5.2% on July 1, 1997, and to 6.3% on July 1, 1998.

Table 1: Average Monthly Rates of Competitive and Noncompetitive Groups

Date	Competitive	Noncompetitive	\$ Difference	% Difference
7/1/96	\$25.42	\$26.21	\$0.79	3.1%*
7/1/97	\$27.15	\$28.56	\$1.41	5.2%*
7/1/98	\$28.71	\$30.53	\$1.82	6.3%*

Source: 1998 Price Survey. Average rate is for BST, the most highly subscribed CPST, a remote, and a converter. An asterisk signifies a statistically significant difference between competitive and noncompetitive groups at 95.5% level of confidence. To determine whether a change over time, or the difference between the estimated means for two groups, is statistically significant, we apply the "z test." See Kmenta at pages 136-137 for a more complete explanation of the "z test." See Attachment C-1 for standard errors for the reported averages.

25. We recognize that the rates charged by individual operators may be affected by factors other than competitive status. In our 1997 Price Survey Report, we identified size as another factor that influences average monthly rates. In order to determine the extent to which size influences rates, we have calculated the average monthly rate for each size stratum in the competitive and noncompetitive groups and present the results of these calculations in Tables 2 and 3, below. The tables show that, for both groups of operators, smaller systems typically charge less, and their rates have increased less rapidly, than larger systems. It should be noted, however, that smaller systems typically offer fewer channels than larger systems. Thus, larger systems typically charge less on a per channel basis than smaller systems. See Attachment C-8 for information on number of channels and per channel rates by size category.

26. The tables also show that the competitive group had lower average monthly rates than the noncompetitive group across all size categories. See Attachment C-1 for additional information on the comparison between the competitive and noncompetitive groups by size category. As shown in the attachment, between 1997 and 1998, the gap between competitive and noncompetitive operators changed only slightly for small operators, from 3.9% in 1997 to 4.1% in 1998, and increased for large operators, from 7.3% in 1997 to 10.8% in 1998. The gap between medium-sized operators decreased from 5.2% to 4.1%.³²

³¹The prices reported in this document have not been adjusted for inflation and therefore are in nominal dollars.

³²In addition to size and competitive status, the Commission, in its *Benchmark Order*, identified a number of other

Table 2: Comparison of Average Monthly Rates by Size Strata
Competitive Group

	7/1/96 (a)	7/1/97 (b)	% Change (b-a)	7/1/98 (c)	% Change (c-b)
Large Systems	\$25.77	\$27.54	6.9%*	\$28.73	4.3%*
Medium Systems	\$25.16	\$26.87	6.8%*	\$28.95	7.7%*
Small Systems	\$24.40	\$25.87	6.0%*	\$27.02	4.4%*

Source: 1998 Price Survey. Large systems are those with 50,000 or more subscribers, medium-sized systems are those between 10,000 and 49,999 subscribers, and small systems are those with fewer than 10,000 subscribers. Note: this is not the legal definition for small systems. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time.

Table 3: Comparison of Average Monthly Rates by Size Strata
Noncompetitive Group

	7/1/96 (a)	7/1/97 (b)	% Change (b-a)	7/1/98 (c)	% Change (c-b)
Large Systems	\$27.21	\$29.54	8.6%*	\$31.82	7.7%*
Medium Systems	\$25.82	\$28.28	9.5%*	\$30.14	6.6%*
Small Systems	\$24.49	\$26.89	9.8%*	\$28.12	4.6%*

Source: 1998 Price Survey. Large systems are those with 50,000 or more subscribers, medium-sized systems are those between 10,000 and 49,999 subscribers, and small systems are those with fewer than 10,000 subscribers. Note: this is not the legal definition for small systems. Average rate is for BST, CPST, a remote and a converter. An asterisk signifies a statistically significant change over time.

27. As previously noted, within the competitive group there are four subcategories according to the four criteria or tests under which a finding of effective competition can be made.³³ Generally, effective competition is found where more than one operator serves a community (the "overbuild" test), where there is low subscribership (the "low penetration" test), where the system is

variables as factors influencing subscriber rates. These included average household income in the area served and whether or not the operator was affiliated with a multiple system operator ("MSO"). Five "product mix" variables were also identified. These were: (1) the proportion of channels that are not local broadcast channels, (2) the ratio of additional outlets to the number of subscribers, (3) the proportion of total system subscribers to CPST subscribers, (4) the ratio of tier subscription changes to the number of subscribers, and (5) the ratio of remotes rented to the number of subscribers. We applied all of these factors to the 1998 Price Survey data to determine if the factors have any effect on average monthly rates for 1997 and 1998. We used regression analysis to show the effects of these factors on rates. The estimated regression coefficients are shown in Attachment C-4. These regression coefficients show that system size, per capita income in the area served, and MSO affiliation were factors that had a significant effect on monthly rates for both 1997 and 1998. We also found that the five product mix variables mentioned above -- local channels, additional outlets, CPST subscribers, tier changes, and remotes -- had no significant influence on rates for these two years.

³³See note 2 for a description of the four tests for effective competition.

owned by a municipality (the "municipal" test), or where the competing service provider is owned by, or affiliated with, a local telephone company (the "LEC" test). In the following table, we report the average monthly rate for each of these four subcategories of the competitive group, along with the average rates for the noncompetitive group. The table shows that the average monthly rate charged by competitive operators varies significantly according to which test was used to determine effective competition but for all subcategories was lower than the average monthly rate charged by the noncompetitive group. The differentials between the noncompetitive group and each subcategory of the competitive group also vary widely. As of July 1, 1998, these differentials ranged from a low of 5.5% for the low penetration subcategory to a high of 30.2% for the municipal subcategory. The two subcategories that face head-to-head competition -- the overbuild and LEC test subcategories -- charged similar rates, on average, and had a differential of about 14% on July 1, 1998.³⁴ (The percentage differentials for each subcategory can be found in Attachment C-5.)

Table 4: Average Monthly Rate for Each Subcategory of the Competitive Group
According to the Test by Which Effective Competition was Determined
Compared With the Noncompetitive Group

	Overbuild	Low Penetration	Municipal	LEC	Noncompetitive Group
7/1/96	\$22.01	\$25.36	\$20.42	\$24.45	\$26.21
7/1/97	\$24.47	\$27.08	\$22.52	\$26.21	\$28.56
7/1/98	\$26.79	\$28.94	\$23.46	\$26.78	\$30.53

Source: 1998 Price Survey. Average rate is for BST, CPST, a remote and a converter. See Attachment C-5 for standard errors for the reported averages, the percentage differentials, and the test for statistical significance.

28. Table 5, below, reports additional information for the competitive group. The table provides a breakdown of the programming services portion of average monthly rates by BST and CPST along with information on equipment charges, average monthly rates per channel, and average monthly rates per satellite channel. Between July 1, 1997 and July 1, 1998, the average monthly rate for programming services and equipment for the competitive group rose by 5.8%. The charge for basic service increased by 4.0% while the charge for CPST service increased by 7.1%. The average monthly charge for equipment rose by 10.2% over the same time period. The number of channels offered increased by 1.5% from 53.2 channels on July 1, 1997 to 54 channels on July 1, 1998. The average rate per channel increased by 3.6%, while the average rate per satellite channel remained flat during the year ending July 1, 1998.³⁵

³⁴For 1998, the regression equation results show that if we hold size, MSO affiliation, and the income variable constant, operators belonging to the LEC test subcategory of the competitive group had rates that were 15.5% lower than the noncompetitive group. Similarly, operators belonging to the overbuild subcategory had rates that were 7.7% lower. For the same year, the regression coefficient for the low penetration subcategory was not significantly different from zero, which indicates that operators in that subcategory charged rates that were statistically indistinguishable from the rates charged by operators in the noncompetitive group.

³⁵The average rate per channel is calculated for each respondent and then averaged, as noted in paragraphs 20 and 21, above. Hence, a direct division between the average number of channels and the average monthly rate shown in the tables will not yield the average monthly rate per channel (or per satellite channel) that is shown in the tables.

Table 5: Competitive Group

Average Monthly Charge For:	7/1/97	7/1/98	\$ Change	% Change
BST	\$10.69	\$11.12	\$0.44	4.0%
CPST	\$14.11	\$15.00	\$0.89	7.1%*
Programming Services (BST+CPST)	\$24.80	\$26.12	\$1.32	5.3%*
Equipment	\$2.35	\$2.59	\$0.24	10.2%
Average Monthly Rate (Programming + Equip.)	\$27.15	\$28.71	\$1.56	5.8%*
Avg. Number of Channels Offered	53.2	54	NA	1.5%*
Avg. Monthly Rate Per Channel	\$0.55	\$0.57	\$0.02	3.6%
Avg. Number of Satellite Channels Offered	39.3	41.0	NA	4.3%
Avg. Monthly Rate Per Satellite Channel	\$0.77	\$0.77	\$0.00	0%

Source: 1998 Price Survey. An asterisk signifies a statistically significant change over time. See Attachment C-2 for standard errors for the reported averages.

29. Table 6 reports a similar breakdown for the noncompetitive group. The average monthly rate for programming services and equipment increased by 6.9% between 1997 and 1998. The average monthly charge for the BST and CPST rose by 3.7% and 9.0%, respectively, in the same time period. The average monthly charge for equipment was up by 9.9%. Because many cable operators increased the number of channels they offered during this period, increases in cable rates are lower on a per channel basis. Subscribers received about 48 channels, on average, in July 1997, and about 50 channels as of July 1998, an increase of 4.6%. The average rate per channel was \$0.64 as of July 1997, and \$0.65 as of July 1998, an increase of 1.6%. The average monthly rate per satellite channel declined by 2.2% for the year ending July 1, 1998, from \$0.89 to \$0.87. In addition, the per channel rates (both average monthly rate per channel and average monthly rate per satellite channel) are lower for the competitive group than for the noncompetitive group, and the competitive group offers more channels, on average, than the noncompetitive group.

30. The per channel rates and the number of channels offered are interpreted by some observers as a measure of value or quality. As previously noted, in note 27, the value of cable service is difficult to measure and per channel rates or the addition of new channels is not always considered a measure of increased value by subscribers or by industry observers. The BLS, for example, when compiling the Cable CPI makes a qualitative assessment when new channels are added and in some cases makes a quality adjustment for the new channel and in some cases does not. In compiling the Cable Producer Price Index ("Cable PPI"), however, the BLS makes a quality adjustment each time a new channel is added. For the years ending July 1996 and 1997, the Cable PPI rose by 4.2% and 4.1%, respectively. This compares with an increase of 7.5% and 6.7%, respectively, for the Cable CPI for the same time periods. In this report we have not adjusted rates, including per channel rates, in an attempt to measure value or quality.

Table 6: Noncompetitive Group

Average Monthly Charge For:	7/1/97	7/1/98	\$ Change	% Change
BST	\$11.63	\$12.06	\$0.43	3.7%
CPST	\$14.51	\$15.82	\$1.31	9.0%*
Programming Services (BST+CPST)	\$26.14	\$27.88	\$1.74	6.7%*
Equipment	\$2.42	\$2.65	\$0.24	9.9%*
Average Monthly Rate (Programming+Equip.)	\$28.56	\$30.53	\$1.97	6.9%*
Avg. Number of Channels Offered	47.9	50.1	NA	4.6%*
Avg. Monthly Rate Per Channel	\$0.64	\$0.65	\$0.01	1.6%
Avg. Number of Satellite Channels Offered	35.4	38	NA	7.6%
Avg. Monthly Rate Per Satellite Channel	\$0.89	\$0.87	-\$0.02	-2.2%

Source: 1998 Price Survey. An asterisk signifies a statistically significant change over time. See Attachment C-2 for standard errors for the reported averages.

B. Regulated and Unregulated Subcategories of the Noncompetitive Group

31. As previously noted, the Survey included questions intended to identify each respondent's regulatory status, and this information was further verified against Commission records. Tables 7 and 8, below, report results for noncompetitive operators by their regulatory status.³⁶ Average monthly rates for programming services and equipment for the regulated sub-group increased by 7.5% and for the unregulated sub-group by 6.1% during the year ending July 1, 1998. The regulated group, however, offers subscribers more channels and charges less on a per channel basis than the unregulated group. The regulated group showed a marked increase in charges for equipment compared with the unregulated group for the year ending July 1, 1998. This change may be due to the application of rules for averaging equipment costs as well as the higher cost of digital equipment that is being put into service by large, and for the most part regulated, systems.³⁷ As of July 1, 1997 and 1998, the regulated group charged \$2.43 and \$2.71, respectively, per month for equipment, an increase of 11.5% between those two dates. For the same time period, the unregulated portion of the noncompetitive group charged \$2.49 and \$2.57, respectively, an increase of 3.2%.

³⁶It should be noted that the competitive group is also unregulated. However, for purposes of reporting, the "unregulated group" is considered to be only that segment of the noncompetitive group that is unregulated.

³⁷The Telecommunications Act of 1996 allows operators to aggregate their equipment costs on a franchise, system, regional, or company level. See Telecommunications Act of 1996, Pub. L. No. 104-104, 100 Stat. 56, § 301(j), Communications Act, § 623(a)(7)(A), 47 U.S.C. § 543(a)(7)(A); See also 47 C.F.R. § 76.923(c); *Report and Order In the Matter of Implementation of Section 301(j) of the Telecommunications Act of 1996*, 11 FCC Rcd 6778, 6786 (1996) ("Equipment Aggregation Order").

Table 7: Regulated Subcategory of the Noncompetitive Group

Average Monthly Charge For:	7/1/97	7/1/98	% Change
BST	\$10.81	\$11.05	2.2%
CPST	\$15.18	\$16.79	10.6%*
Programming Services (BST+CPST)	\$25.99	\$27.84	7.1%*
Equipment	\$2.43	\$2.71	11.5%*
Average Monthly Rate (Programming+Equip.)	\$28.42	\$30.55	7.5%*
Avg. Number of Channels Offered	48.4	50.8	5.0%*
Avg. Monthly Rate Per Channel	\$0.62	\$0.63	1.6%*
Avg. Monthly Rate Per Satellite Channel	\$0.86	\$0.84	-2.3%

Source: 1998 Price Survey. An asterisk signifies a statistically significant change over time. See Attachment C-2 for standard errors for the reported averages.

Table 8: Unregulated Subcategory of the Noncompetitive Group

Average Monthly Charge For:	7/1/97	7/1/98	% Change
BST	\$12.37	\$12.89	4.2%*
CPST	\$13.92	\$15.07	8.3%*
Programming Services (BST+CPST)	\$26.29	\$27.96	6.4%*
Equipment	\$2.49	\$2.57	3.2%
Average Monthly Rate (Programming+Equip.)	\$28.78	\$30.53	6.1%
Avg. Number of Channels Offered	46.8	49.1	4.7%
Avg. Monthly Rate Per Channel	\$0.67	\$0.67	0%
Avg. Monthly Rate Per Satellite Channel	\$0.90	\$0.89	-1.1*

Source: 1998 Price Survey. An asterisk signifies a statistically significant change over time. See Attachment C-3 for standard errors.

C. Other Charges

32. Table 9, below, provides a comparison of the charges for installation, disconnection, reconnection and tier changes for the competitive and noncompetitive groups. These charges are difficult to interpret because they are subject to frequent promotions that may provide deep discounts.³⁸ See Attachment D-1 for further information about these charges.

Table 9: Other Charges				
	Competitive Group		Noncompetitive Group	
	1997	1998	1997	1998
Installation	\$24.26	\$26.15	\$28.21	\$29.74
Disconnection	\$8.60	\$11.89	\$3.16	\$3.31
Reconnection	\$19.04	\$18.84	\$21.70	\$22.74
Tier Change	\$9.28	\$9.28	\$6.76	\$6.89

Source: 1998 Price Survey.

D. Operators' Explanation for Changes in Rates

33. The survey asked respondents to attribute changes in rates between July 1, 1996 and July 1, 1997, and between July 1, 1997 and July 1, 1998 to several factors. Both competitive and noncompetitive respondents attribute most of their rate increases to increases in programming costs, inflation, channel additions, and system upgrades. Miscellaneous or "other" cost increases also account for a large portion of rate increases.³⁹ Table 10, below, summarizes the results for both the competitive and noncompetitive groups. Additional information on the explanation for rate changes is provided in Attachment C-6.

³⁸See *Competition Report* at ¶ 229 for a discussion of free installation offers and other marketing efforts.

³⁹Within the noncompetitive group, we believe that, for regulated systems, the "other" category is primarily made up of "true-up" costs as allowed by Commission rules. See *In the Matter of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation*, MM Docket No. 92-266, Thirteenth Order on Reconsideration, 11 FCC Rcd 388, 391 (1996). Since competitive and unregulated operators are not subject to the Commission's rate regulation rules, they may be attributing some portion of their rate increases to factors other than those listed on the Survey questionnaire.

Table 10: Explanation for Changes In Rates

	Competitive Group		Noncompetitive Group	
	1997	1998	1997	1998
Increases in Existing Programming Costs*	24%	29%	24%	33%
Inflation	21%	30%	20%	16%
Channel Addition**	20%	11%	18%	13%
System Upgrades***	17%	10%	15%	14%
Equipment Cost Increases	3%	8%	12%	10%
"Other" Cost Increases	15%	12%	11%	15%

Source: 1998 Price Survey. *Programming costs include copyright fees. For a breakdown of programming by type, see Attachment C-6. ** Includes the cost of programming for newly added channels. ***Includes upgrades pursuant to a social contract or local franchise agreement.

E. Distribution of Programming by Major Categories

34. Table 10, above, shows that competitive and noncompetitive operators attribute a relatively large portion of their rate increases to increases in existing programming costs. The Survey questionnaire asked operators to provide the number of satellite channels they offered as well as a breakdown of their programming cost increases according to the major categories of programming, i.e., children's, news, sports, and general entertainment. In their explanation for changes in rates, operators attribute a large percentage of their programming cost increases to general entertainment programming. This follows from the fact that the bulk of satellite channels are devoted to general entertainment programming as shown in Table 11, below. The competitive group attributed 63% of their programming cost increases to general entertainment programming, 4% to children's programming, 9% to news programming, and 24% to sports for the year ending July 1, 1998. For the same time period, the noncompetitive group attributed 69% of their programming cost increases to general entertainment programming, 3% to children's programming, 6% to news, and 22% to sports. Table 11 also shows the average number of satellite channels devoted to each of these major categories of programming for both the competitive and noncompetitive groups.

Table 11: Average Number of Satellite Channels Devoted to Each Category of Programming

	Competitive Group			Noncompetitive Group		
	1997	1998	% Change	1997	1998	% Change
Children's	1.7	1.9	11.8%	1.5	1.6	6.7%
News	5.1	5.4	5.9%	5.0	5.4	8.0%
Sports	3.3	3.6	9.1%	2.6	2.9	11.5%
General Entertainment	29.2	30.1	3.1%	26.3	28.2	6.8%
Total Satellite Channels	39.3	41.0	4.3%	35.4	38	7.6%

Source: 1998 Price Survey.

F. Digital Services

35. This is the first year that operators were asked questions about digital services. Of the operators responding to a question about the availability of a digital tier of service, 128 reported that they offer that service. Of those 128 respondents, 107 provided additional information on the number of channels offered, the monthly rate charged, and the average number of subscribers. On average, operators offered a single digital tier made up of approximately 40 video channels (which, through compression, occupied approximately five analog channels) for an average monthly charge of \$10.70, as shown in Table 12, below.⁴⁰ The operators offering this service had a total of approximately 160,000 subscribers, or an average of about 1,500 each, to the service as of July 1, 1998.

Table 12: Digital Services As of July 1, 1998

Average Number of Digital Tiers	1
Average Monthly Charge for Digital Tier	\$10.70
Average Number of Digital Tier Subscribers	1,481
Average Number of Digital Channels	39.7
Average Number of Analog Channels Devoted to Digital Tier	5

Source: 1998 Price Survey.

36. Of the 764 operators responding to a question about system capacity, about 10% had capacities of more than 330 MHz but less than 450 MHz, about 25% had capacities between 450 MHz and 549 MHz, and almost 50% had a capacity of 550 MHz or more which could allow the provision of roughly 90 uncompressed analog video channels and/or services such as telephony or Internet access.⁴¹ A total of 261 operators, or nearly 35% of the 751 operators responding to a question about two-way interactive capacity, reported that they have such capacity. Of the 709 operators who responded to a question about Internet access, 137, or approximately 20% of those responding, reported that they offer that service, and that they provide Internet access to more than 115,000 subscribers.⁴² Twenty-five operators reported that they offer telephony service, and that they provide that service to about 22,000 subscribers.

⁴⁰Services on digital tiers are separate from BST or CPST and information on digital tiers were not included in our calculation of the six variables discussed in paragraphs 15 through 20 that serve as the focus of the report.

⁴¹While bandwidth of more than 550 MHz is not technically necessary for the provision of telephony or Internet access, operators with system capacities of less than 550 MHz who add these services will usually upgrade their systems to 550 or 750 MHz in order to mitigate two-way transmission problems such as interference and higher maintenance costs.

⁴²According to CableDatacomNewscom at <http://Cabledatacomnews.com/cm16.htm>, about 13 million subscribers or approximately 20% of all cable subscribers are served by a cable system that has the ability to offer Internet access services via cable. Based on the record submitted to the Commission concerning the deployment of advanced telecommunications capability there are, at a minimum, 350,000 residential customers subscribing to broadband services from cable television companies. *See Report in the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket 98-146, FCC 99-5 at ¶¶ 37 and 54 (Released February 2, 1999).

Table 13: Capacity/Service Information

	Number of Valid Responses to These Questions	Number of Respondents Offering Particular Capacities/Services	Respondents Offering Particular Capacities/Services as a Percent of Valid Responses
Operators Reporting Capacity of:			
Up to 330 MHz	755	123	16.3%
Between 331 MHz and 450 MHz	755	73	9.7%
Between 451 MHz and 549 MHz	755	185	24.5%
550 MHz and above	755	374	49.5%
Operators That Offer:			
Two-way interactive service	751	261	34.8%
Internet access	709	137	19.3%
Cable telephony	678	25	3.7%
Source: 1998 Price Survey.			

V. Conclusion

37. The results of this year's survey of cable prices indicate that prices rose both for the competitive and noncompetitive groups. As of July 1, 1997, the noncompetitive group, on average, charged \$28.56 per month compared with \$27.15 for the competitive group, a differential of \$1.41 or 5.2%. As of July 1, 1998, the average monthly rate for the noncompetitive group, rose by 6.9% to \$30.53, and for the competitive group, rose by 5.8% to \$28.71, a differential between competitive and noncompetitive of \$1.82, or 6.3%, as of that date.

38. Both the competitive and noncompetitive groups offered subscribers more channels. Regulated operators, on average, offer more channels than unregulated operators, and subscribers of regulated operators pay significantly less on a per channel basis than subscribers purchasing services from noncompetitive unregulated operators.

36. The competitive group has lower per channel rates than the noncompetitive group for both years studied. For the year ending July 1, 1998, the competitive group reports an average monthly rate per channel of \$0.57 compared with \$0.65 for the noncompetitive group. For the same time period, the average monthly rate per satellite channel remained the same for the competitive group and fell by 2.2% for the noncompetitive group, respectively, resulting in an average monthly rate per satellite channel of \$0.77 for the competitive group compared with \$0.87 for the noncompetitive group.

37. Finally, we found that a growing number of operators are offering new services such as digital tiers, Internet access, and telephony. Approximately one-half of the operators surveyed report that they have upgraded their systems to a capacity of 550 MHz or higher.

VI. ADMINISTRATIVE MATTERS

39. It is ORDERED that this Report is issued pursuant to authority contained in Section 623(k) of the Communications Act of 1934, as amended 47 U.S.C. 534(k).

FEDERAL COMMUNICATIONS COMMISSION

A handwritten signature in cursive script, reading "Magalie Roman Salas".

Magalie Roman Salas
Secretary

Attachment A: Survey Sample By Group and Size Stratum

	Number of CUIDs in Universe*	Number of CUIDs in Sample	Number of CUIDs Responding	Number of CUIDs Providing Usable Responses
Competitive Group	286	286	253	246
Large	NA	NA	44	44
Medium	NA	NA	94	93
Small	NA	NA	115	109
Noncompetitive Group	29,595	560	530	521
Large	3,145	289	265	265
Medium	7,046	190	186	181
Small	19,404	81	79	75
Grand Total	29,881	846	783	767

*From FCC Form 325 filings. *Note:* The number of competitive CUIDs sampled by size stratum are not available because the competitive group was not stratified until after the survey results were collected and because subscriber counts for CUIDs recently found to be competitive were not in the FCC Form 325 database.

Attachment B: Operators That Changed the Number of Active Channels Between 1997 and 1998

	Responses	Competitive Group	Noncompetitive Group	Regulated Group	Unregulated Group
No change	259	90	169	102	67
Increased capacity between 1 and 5 channels	312	92	220	160	60
Increased capacity between 6 and 10 channels	69	32	37	28	9
Increased capacity between 11 and 15 channels	32	8	24	19	5
Increased capacity between 16 and 20 channels	12	2	10	5	5
Increased capacity between 21 and 30 channels	17	4	13	11	2
Increased capacity between 31 and 50 channels	10	2	8	6	2

Source: 1998 Price Survey.

**Attachment C-1 Comparison of Competitive and Noncompetitive Groups By Size Strata
Average Monthly Rates**

Size	Competitive Group	Noncompetitive Group	\$ Difference between Means	% Difference between Means
1998				
<i>Large</i>	\$28.73	\$31.82	\$3.09	10.8%*
Standard error	(0)	(0.18)		
Number of Responses	44	265		
<i>Medium</i>	\$28.95	\$30.14	\$1.19	4.1%*
Standard error	(0)	(0.33)		
Number of Responses	93	181		
<i>Small</i>	\$27.02	\$28.12	\$1.10	4.1%*
Standard error	(0)	(0.58)		
Number of Responses	109	75		
1997				
<i>Large</i>	\$27.54	\$29.54	\$2.00	7.3%*
Standard error	(0)	(0.17)		
Number of Responses	29	256		
<i>Medium</i>	\$26.87	\$28.28	\$1.41	5.2%*
Standard error	(0)	(0.29)		
Number of Responses	93	184		
<i>Small</i>	\$25.87	\$26.89	\$1.02	3.9%*
Standard error	(0)	(0.58)		
Number of Responses	108	70		
1996				
<i>Large</i>	\$25.77	\$27.21	\$1.46	5.67%*
Standard error	(0)	(0.17)		
Number of Responses	17	258		
<i>Medium</i>	\$25.16	\$25.82	\$0.66	2.6%*
Standard error	(0)	(0.3)		
Number of Responses	49	201		
<i>Small</i>	\$24.40	\$24.49	\$0.09	0.4%
Standard error	(0)	(0.54)		
Number of Responses	95	76		

Source: 1998 Price Survey. Average rate is for BST, CPST, a remote and a converter. Standard error of the estimate is reported in parenthesis. An asterisk signifies a statistically significant difference between competitive and noncompetitive groups at 95% level of confidence.

Attachment C-2 Comparison of Competitive and Noncompetitive Groups

	1998			1997			1996		
	Competitive Group	Noncompetitive Group	%Difference between Means	Competitive Group	Noncompetitive Group	%Difference between Means	Competitive Group	Noncompetitive Group	%Difference between Means
Average Monthly Rates	\$28.71	\$30.53	6.3%*	\$27.15	\$28.56	5.2%*	\$25.42	\$26.21	3.1%*
	(0)	(0.18)		(0.)	(0.17)		(0)	(0.17)	
Average Number of Channels	54.0	50.1	-7.2%*	53.2	47.9	-10.0%*	48.8	46.1	-5.5%*
	(0)	(0.5)		(0)	(0.5)		(0)	(0.52)	
Avg. Monthly Charge Per Channel	\$0.57	\$0.65	14.01%*	\$0.55	\$0.64	16.4%*	\$0.58	\$0.62	6.9%*
	(0)	(0.01)		(0)	(0.01)		(0)	(0.01)	
Avg. Monthly Charge Per Satellite Channel	\$0.77	\$0.87	13.0%*	\$0.77	\$0.89	15.6%*			
	(0)	(0.01)		(0)	(0.01)				
Monthly Charge for BST	\$11.12	\$12.06	8.5%*	\$10.69	\$11.63	8.8%*			
	(0)	(0.24)		(0)	(0.23)				
Monthly Charge for CPST	\$15.00	\$15.82	5.5%*	\$14.11	\$14.51	3.6%*			
	(0)	(0.27)		(0)	(0.25)				
Equipment Charges	\$2.59	\$2.65	2.3%*	\$2.35	\$2.42	3.0%*			
	(0)	(0.05)		(0)	(0.05)				
Number of Responses	246	521		230	510		161	535	

Source: 1998 Price Survey. Average rate is for BST CPST, a remote and a converter. Standard error of the estimate is reported in parenthesis. An asterisk signifies a statistically significant difference between competitive and noncompetitive groups at 95% level of confidence.

**Attachment C-3 Within the Noncompetitive Group, Comparison of Regulated and Unregulated Subgroups
By Size Strata
Average Monthly Rates**

Size	Regulated Subgroup	Unregulated Subgroup	\$ Difference between Means	% Difference between Means
1998				
<i>Large</i>	\$31.87	\$31.58	-\$0.29	-0.9%
Standard Error	(0.19)	(0.55)		
Number of Responses	221	44		
<i>Medium</i>	\$29.90	\$30.55	\$0.65	2.2%
Standard Error	(0.43)	(0.51)		
Number of Responses	115	66		
<i>Small</i>	\$28.52	\$27.98	-\$0.54	-1.9%
Standard Error	(0.92)	(0.73)		
Number of Responses	20	55		
1997				
<i>Large</i>	\$29.54	\$29.51	-\$0.03	-1.1%
Standard Error	(0.19)	(0.47)		
Number of Responses	216	40		
<i>Medium</i>	\$27.91	\$28.97	\$1.06	3.8%
Standard Error	(0.37)	(0.48)		
Number of Responses	119	65		
<i>Small</i>	\$26.63	\$26.71	\$0.08	0.3%
Standard Error	(0.94)	(0.72)		
Number of Responses	19	51		
1996				
<i>Large</i>	\$27.19	\$27.34	\$0.15	.6%
Standard Error	(0.18)	(0.44)		
Number of Responses	216	42		
<i>Medium</i>	\$25.72	\$25.88	\$0.16	0.6%
Standard Error	(0.34)	(0.57)		
Number of Responses	128	73		
<i>Small</i>	\$25.00	\$24.22	-\$0.78	-3.1%
Standard Error	(0.60)	(0.75)		
Number of Responses	26	50		

Source: 1998 Price Survey. Average rate is for BST CPST, a remote and a converter. Standard error of the estimate is reported in parenthesis. *Note:* In this attachment, differences between the means are not statistically significant.

**Attachment C-4: Regression Results Showing Coefficients for Competitive Status, MSO Affiliation,
System Size, Number of Channels, and Per-capita Income**

Year	Variable	Coefficient
1997	Low Penetration Dummy	-0.004 (0.015)
	LEC Dummy	-0.124 (.022)
	Municipal Dummy	-0.321 (.064)
	Overbuild Dummy	-0.139 (.029)
	MSO Affiliation Dummy	0.041 (.022)
	Reciprocal of System Subscribers	5.21 (1.08)
	Reciprocal of Average Number of Channels	-7.67 (.689)
	Log of Per Capita Income	0.049 (.026)
	Intercept	2.98 (.273)
	Adjusted R Square	0.252
	Number of Observations	740
1998	Low Penetration Dummy	-0.003 (0.014)
	LEC Dummy	-0.168 (0.021)
	Municipal Dummy	-0.307 (0.070)
	Overbuild Dummy	-0.117 (0.028)
	MSO Affiliation Dummy	0.033 (0.021)
	Reciprocal of System Subscribers	5.32 (1.07)
	Reciprocal of Average Number of Channels	-8.68 (0.70)
	Log of Per Capita Income	0.049 (0.026)
	Intercept	3.084 (0.27)
	Adjusted R Square	0.276
	Number of Observations	767

Source: 1998 Price Survey. Dependent variable is log of average monthly rate. Standard error of coefficient is in parenthesis.

**Attachment C-5: Comparison of Competitive Group by Test for Effective Competition With Noncompetitive Group
Average Monthly Rates**

	Low Penetration Test	LEC Test	Municipal Test	Overbuild Test	Noncompetitive Group	% Difference Low Penetration vs. Noncompetitive Group	% Difference LEC vs. Noncompetitive Group	% Difference Municipal vs. Noncompetitive Group	% Difference Overbuild vs. Noncompetitive Group
1998									
Rate	\$28.94	\$26.78	\$23.46	\$26.79	\$30.53	5.5%*	14.0%*	30.2%	14.0%*
Standard Error	(0)	(0)	(0)	(0)	(0.18)				
Responses	153	59	5	29	521				
1997									
Rate	\$27.08	\$26.21	\$22.52	\$24.47	\$28.56	5.5%*	9.0%*	26.8%	16.7%*
Standard Error	(0)	(0)	(0)	(0)	(0.17)				
Responses	148	50	5	27	510				
1996									
Rate	\$25.36	\$24.45	\$20.42	\$22.01	\$26.21	3.4%*	7.2%*	28.4%	19.1%*
Standard Error	(0)	(0)	(0)	(0)	(0.17)				
Responses	132	5	6	18	535				

Source: 1998 Price Survey. Average rate is for BST, CPST, converter and a remote. Standard error is reported in parenthesis. An asterisk signifies a statistically significant difference between averages for various subcategories of the competitive group and the noncompetitive group.

Attachment C-6 Operators' Explanation for Changes in Rates for Competitive and Noncompetitive Groups

Respondents Attribute Changes in Rates to the Following Factors:	1997 -1998				1996 -1997			
	Competitive Group	% of Change in Average Monthly Rate	Noncompetitive Group	% of Change in Average Monthly Rate	Competitive Group	% of Change in Average Monthly Rate	Noncompetitive Group	% of Change in Average Monthly Rate
Sports Programming	\$0.10 (0)	6.8%	\$0.15 (.01)	7.5%	\$0.13 (0)	8.7%	\$0.10 (.01)	4.8%
News Programming	0.04 (0)	2.7%	0.04 (.01)	2.0%	\$0.02 (0)	1.3%	\$0.03 (.0)	1.4%
Children's Programming	\$0.02 (0)	1.4%	\$0.02 (.01)	1.0%	\$0.01 (0)	1.7%	\$0.02 (.01)	1.0%
All Other Programming	\$0.27 (0)	18.5%	\$0.46 (.03)	23.1%	\$0.19 (0)	12.8%	\$0.34 (.02)	16.2%
Copyright Fees	\$0.00 (.03)	0.0%	\$0.00 (.01)	0.0%	\$0.01 (0)	0.7%	\$0.02 (.01)	1.0%
New Channels	\$0.13 (0)	8.9%	\$0.15 (.02)	7.5%	\$0.22 (0)	14.8%	\$0.19 (.02)	9.0%
Channel Additions	\$0.03 (0)	2.1%	\$0.10 (.02)	5.0%	\$0.08 (0)	5.4%	\$0.18 (.02)	8.6%
Headend Upgrades	\$0.04 (0)	2.7%	\$0.06 (0.02)	3.0%	\$0.10 (0)	6.7%	\$0.08 (.03)	3.8%
Upgrade Under Social Contract	\$0.09 (0)	6.2%	\$0.21 (.02)	10.6%	\$0.11 (0)	7.4%	\$0.23 (.02)	11.0%
Upgrade Pursuant to LFA	\$0.02 (0)	1.4%	\$0.00 (.0)	0.0%	\$0.04 (0)	2.7%	\$0.01 (0.0)	0.5%
Inflation Adjustment	\$0.43 (0)	29.5%	\$0.32 (.02)	16.1%	\$0.31 (0)	20.8%	\$0.42 (.02)	20.0%
Equipment	\$0.12 (0)	8.2%	\$0.19 (.02)	9.5%	\$0.05 (0)	3.4%	\$0.26 (.03)	12.4%
Other	\$0.17 (0)	11.6%	\$0.29	14.6%	\$0.22 (0)	14.8%	\$0.22 (.04)	10.5%
Change in Avg. Monthly Rate*	\$1.46	100%	\$1.99	100%	\$1.49	100%	\$2.10	100%
Number of Responses	205		452		178		445	

Source: 1998 Price Survey. *Change in average monthly rate shown above may not be the same as that shown in Tables 5 and 6 because the average monthly rates shown there are based on a larger set of responses (i.e., responses may contain rate information but lack information on factors that explain changes in rates). Standard error is in parenthesis.

Attachment C-7: Average Number of Channels Devoted to Each Category of Programming

	Competitive Group			Noncompetitive Group		
	1997	1998	% Change	1997	1998	% Change
Children's Programming	1.7 (0)	1.9 (0)	11.8%	1.5 (.03)	1.6 (.03)	6.7%
News Programming	5.1 (0)	5.4 (0)	5.9%	5 (.07)	5.4 (.07)	8.0%
Sports Programming	3.3 (0)	3.6 (0)	9.1%	2.6 (.06)	2.9 (.06)	11.5%
General Entertainment Programming	29.1 (0)	30 (0)	3.1%	26.3 (.33)	28.1 (.33)	6.8%
Broadcast and PEG	14.9 (0)	15 (0)	.7%	14.5 (.21)	14.6 (.21)	0.7%
Total Number of Channels*	54.1 (0)	55.9 (0)	3.3%	49.9 (.48)	52.6 (.49)	5.4%
Number of Usable Responses	231	250		509	519	

Source: 1998 Price Survey. *Includes BST and all CPST (other than NPT) channels. Standard error of the estimate is reported in parenthesis.

**Attachment C-8 Comparison of Competitive and Noncompetitive Groups By Size Strata
Channels Offered and Per Channel Rates**

Size	Competitive Group	Noncompetitive Group
	1998	
<i>Large</i>		
Number of Channels	60.3	56.62
Standard error	(0)	(0.67)
Per Channel Rate	\$0.49	\$0.58
Standard error	(0)	(0.01)
Number of Responses	44	265
<i>Medium</i>		
Number of Channels	48.94	49.29
Standard error	(0)	(0.84)
Per Channel Rate	\$0.63	\$0.64
Standard error	(0)	(0.1)
Number of Responses	93	181
<i>Small</i>		
Number of Channels	38.35	36.13
Standard error	(0)	(1.38)
Per Channel Rate	\$0.82	\$0.85
Standard error	(0)	(0.54)
Number of Responses	93	75
	1997	
<i>Large</i>		
Number of Channels	59.07	53.97
Standard error	(0)	(0.68)
Per Channel Rate	\$0.49	\$0.57
Standard error	(0)	(0.01)
Number of Responses	29	256
<i>Medium</i>		
Number of Channels	48.69	46.86
Standard error	(0)	(0.8)
Per Channel Rate	\$0.59	\$0.63
Standard error	(0)	(0.01)
Number of Responses	93	184
<i>Small</i>		
Number of Channels	36.33	35.27
Standard error	(0)	(1.39)
Per Channel Rate	\$0.82	\$0.84
Standard error	(0)	(0.04)
Number of Responses	108	70
	1996	
<i>Large</i>		
Number of Channels	54.29	51.66
Standard error	(0)	(0.71)
Per Channel Rate	\$0.51	\$0.55
Standard error	(0)	(0.01)
Number of Responses	17	258
<i>Medium</i>		
Number of Channels	44.78	44.86
Standard error	(0)	(0.76)
Per Channel Rate	\$0.62	\$0.60
Standard error	(0)	(0.01)
Number of Responses	49	201
<i>Small</i>		
Number of Channels	32.54	34.86
Standard error	(0)	(1.53)
Per Channel Rate	\$0.87	\$0.80
Standard error	(0)	(0.04)
Number of Responses	95	76

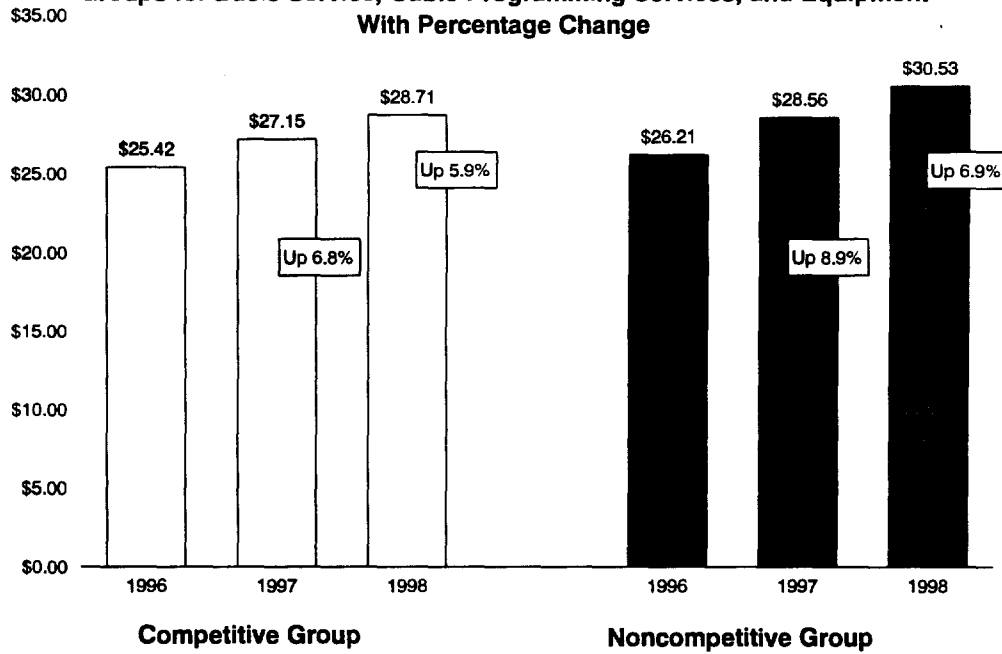
Source: 1998 Price Survey. Average rate is for BST, CPST, a remote and a converter. Standard error is reported in parenthesis.

Attachment D-1: Average Monthly Charges for Other Services

	Competitive Group		Noncompetitive Group	
	1997	1998	1997	1998
Installation	\$24.26	\$26.15	\$28.21	\$29.74
	(0)	(0)	(.16)	(.92)
Number of Responses	173	215	502	506
Disconnection	\$8.60	\$11.89	\$3.16	\$3.31
	(0)	(0)	(.21)	(.23)
Number of Responses	50	50	155	158
Reconnection	\$19.04	\$18.84	\$21.70	\$22.74
	(0)	(0)	(.16)	(.15)
Number of Responses	174	180	151	359
Tier Change	\$9.28	\$9.28	\$6.76	\$6.89
	(0)	(0)	(.14)	(.14)
Number of Responses	126	129	363	371

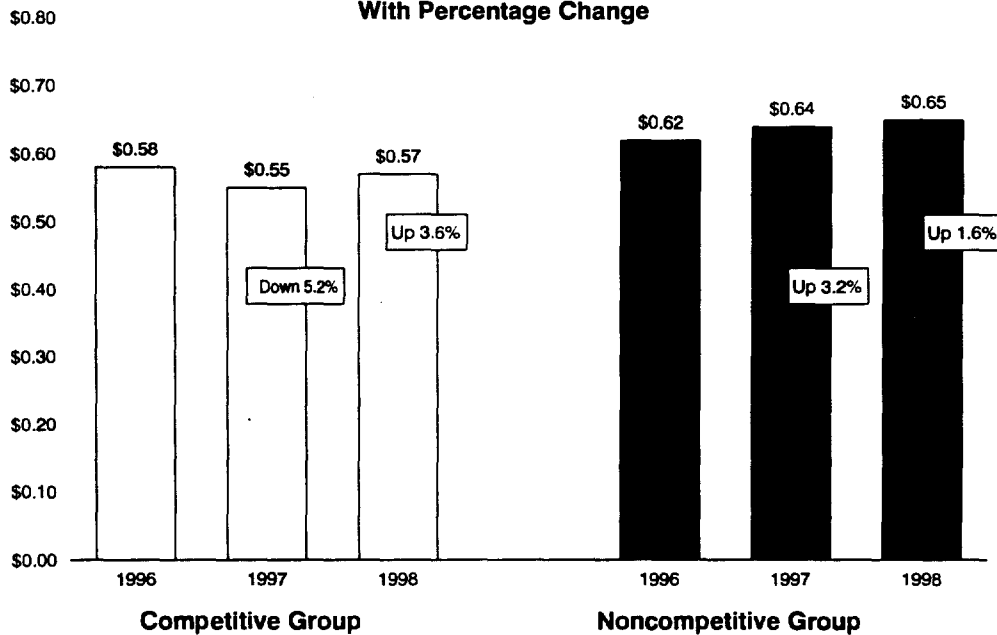
Source: 1998 Price Survey. Standard error is reported in parenthesis.

Chart 1:
Comparison of the Average Monthly Rates Charged by Competitive and Noncompetitive Groups for Basic Service, Cable Programming Services, and Equipment With Percentage Change



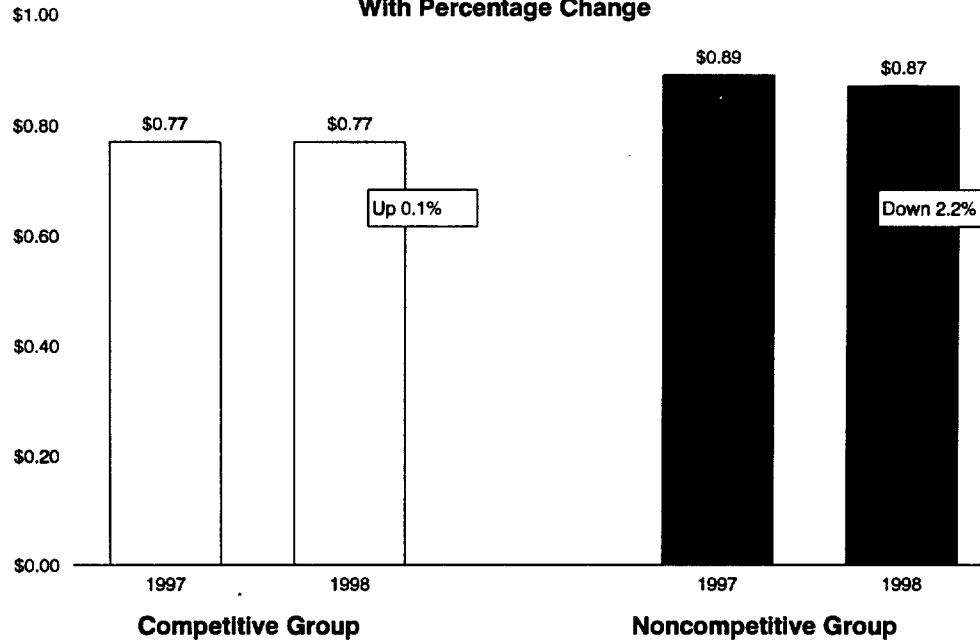
Source: 1998 Price Survey

Chart 2:
Comparison of the Average Monthly Rate Per Channel Charged by Competitive and Noncompetitive Groups With Percentage Change



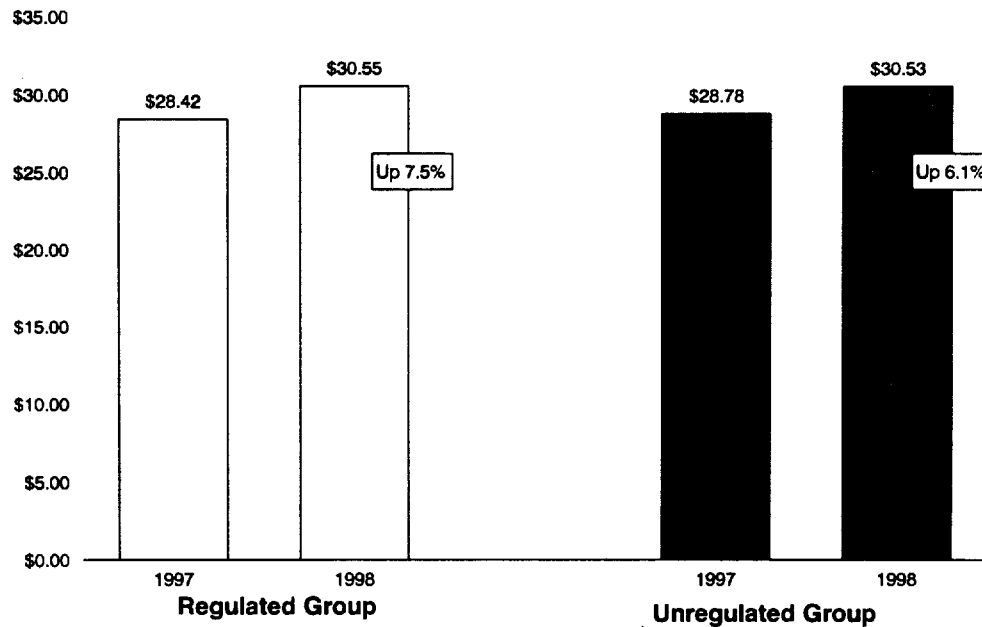
Source: 1998 Price Survey

Chart 3:
Comparison of the Average Monthly Rate Per Satellite Channel Charged by
Competitive and Noncompetitive Groups
With Percentage Change



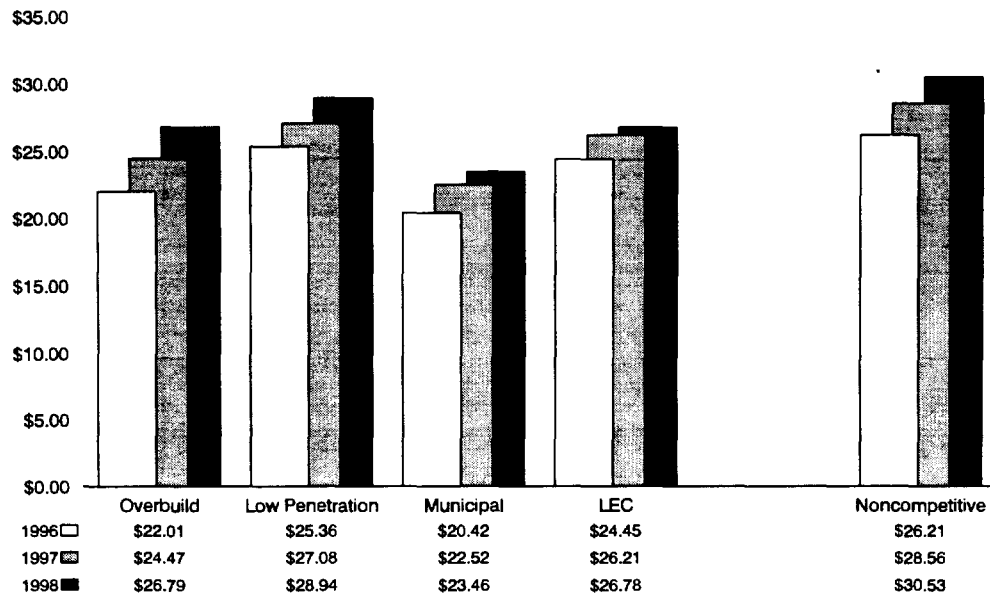
Source: 1998 Price Survey

Chart 4:
Comparison of the Average Monthly Rates Charged by Regulated and
Unregulated Groups for Basic Service, Cable Programming Services
and Equipment With Percentage Change



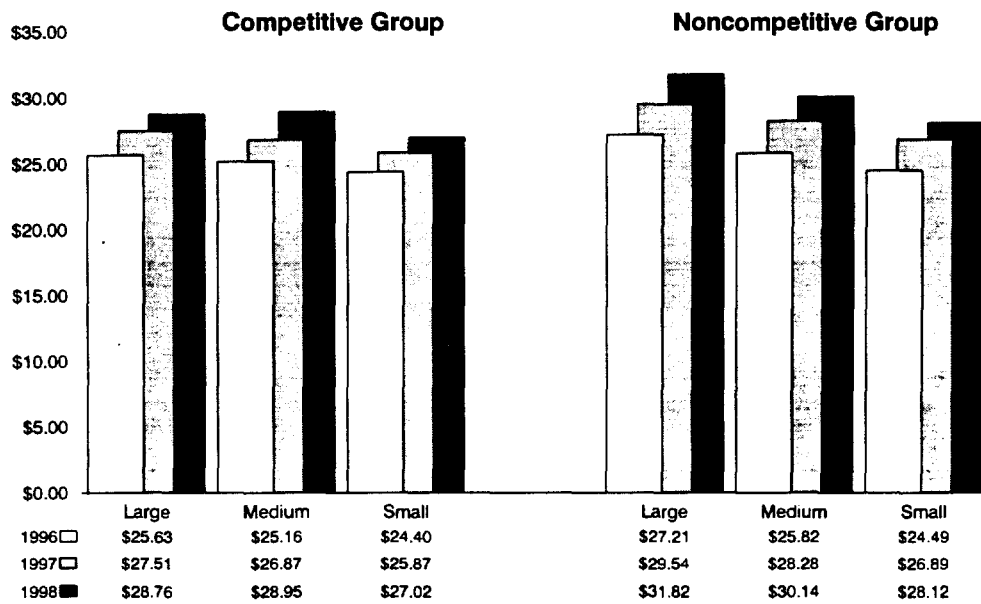
Source: 1998 Price Survey

Chart 5:
Average Monthly Rate for Each Subcategory of the Competitive Group
Compared with the Noncompetitive Group



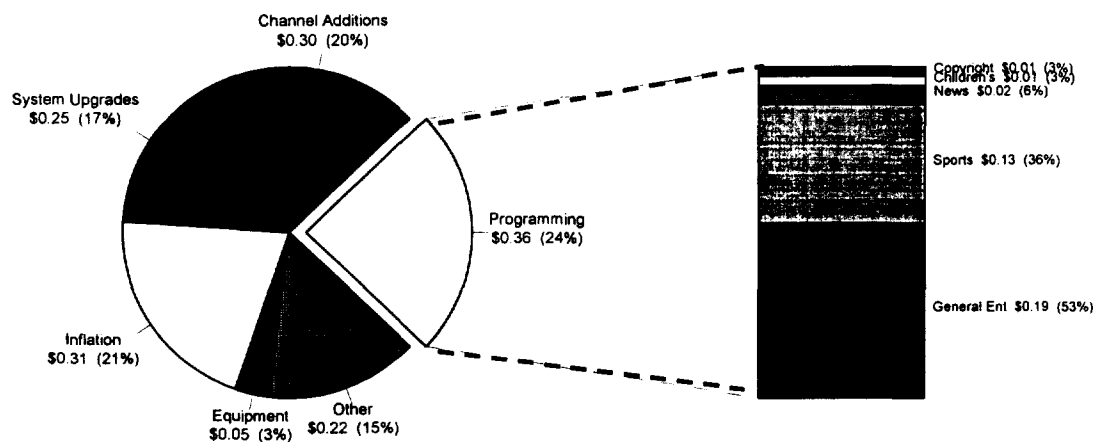
Source: 1998 Price Survey

Chart 6:
Average Monthly Rate by Size



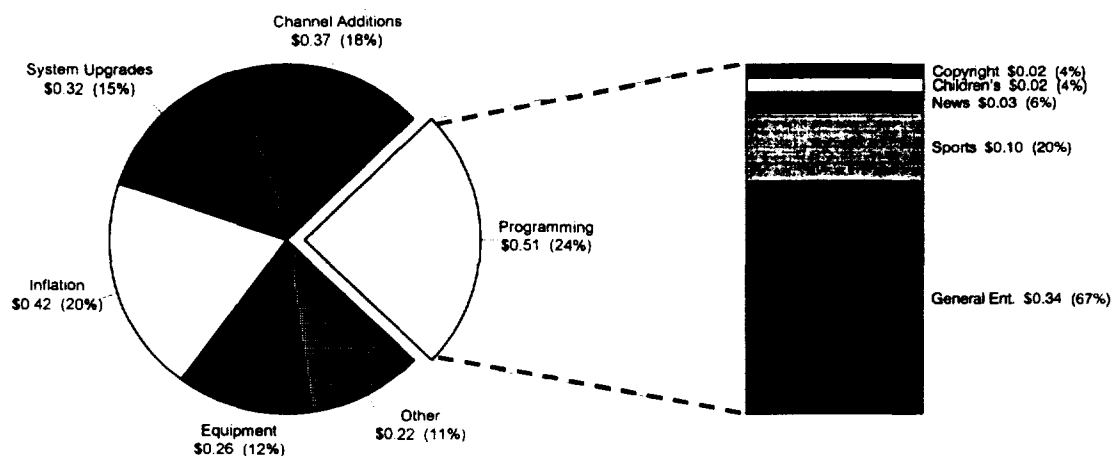
Source: 1998 Price Survey

Chart 7:
Explanation for Changes in Rates for the Competitive Group
For the Year Ending July 1, 1997



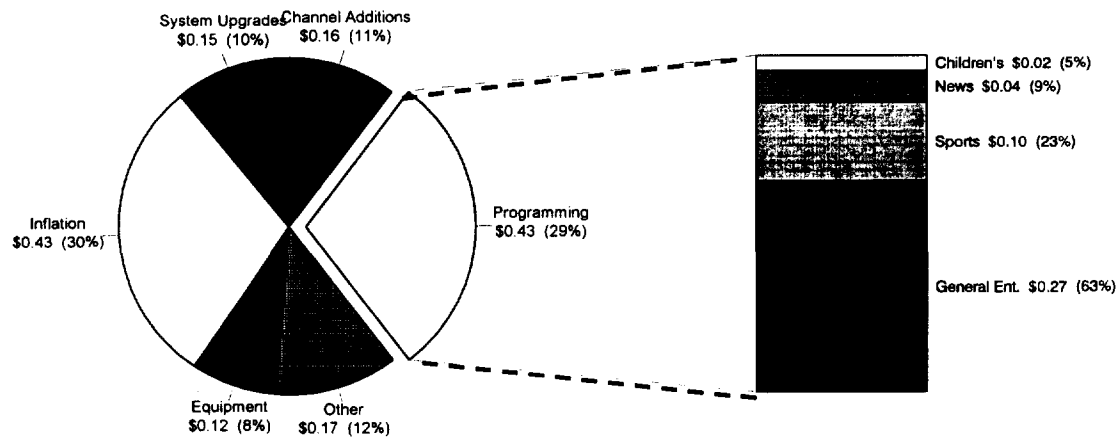
Source: 1998 Price Survey

Chart 8:
Explanation for Changes in Rates for the Noncompetitive Group
For the Year Ending July 1, 1997



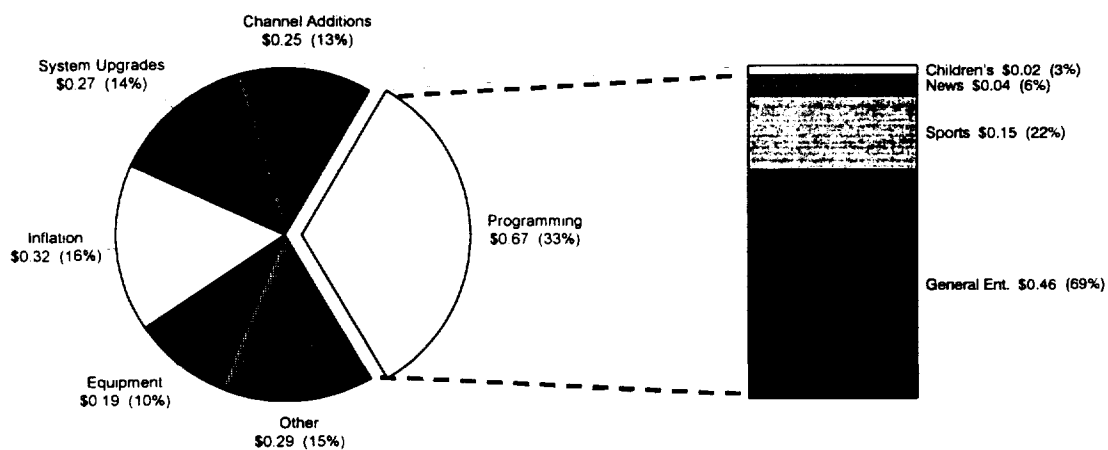
Source: 1998 Price Survey

Chart 9:
Explanation for Changes in Rates for the Competitive Group
For the Year Ending July 1, 1998



Source: 1998 Price Survey

Chart 10:
Explanation for Changes in Rates for the Noncompetitive Group
For the Year Ending July 1, 1998



Source: 1998 Price Survey